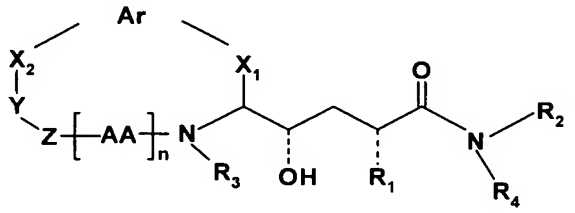
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the specification:

List of Claims:

Claim 1. (original) A compound of formula I



I

wherein

R_1 is (C_{1-8})alkyl, (C_{1-4})alkoxy(C_{1-4})alkyl, hydroxy(C_{1-6})alkyl, (C_{1-4})alkylthio(C_{1-4})alkyl, (C_{1-6})alkenyl, (C_{3-7})cycloalkyl, (C_{3-7})cycloalkyl(C_{1-4})alkyl, piperidinyl or pyrrolidinyl,

R_2 and R_4, independently, are hydrogen or optionally substituted (C_{1-8})alkyl, (C_{3-7}) cycloalkyl, (C_{3-7})cycloalkyl(C_{1-4})alkyl, aryl, aryl(C_{1-4})alkyl, heteroaryl or heteroaryl(C_{1-4}) alkyl, or

R_2 and R_4, together with the nitrogen to which they are attached, form an optionally substituted piperidino, pyrrolidinyl, morpholino or piperazinyl group,

R_3 is hydrogen or (C_{1-4})alkyl,

X_1 is CH_2,

X_2 is CH_2, O, S, CO, COO, OCO, NHCO, CONH, or NR, R being hydrogen or (C_{1-4})alkyl,

Y is (C_{1-8})alkylen or (C_{1-8})alkylenoxy(C_{1-6})alkylen, (C_{1-8})alkenylen or (C_{1-8})alkenylenoxy(C_{1-6})alkylen,

Ar is a phenyl ring optionally mono- di- or trisubstituted by, independently, hydroxy or halogen, whereby X_1 and X_2 are in meta or para position to each other,

and either

Z is CO,

AA is a natural or unnatural alpha-amino-acid, and

n is 0 or 1,

or

Z is SO_2,

AA is an optionally substituted ethylencarbonyl group (derived from a natural or unnatural alpha-amino acid by replacement of the nitrogen by a methylen group), and

n is 1

in free base or acid addition salt form.

Claim 2. (original) A compound of formula I according to claim 1, wherein

R_1 is (C_{1-8})alkyl, (C_{1-4})alkoxy(C_{1-4})alkyl, hydroxy(C_{1-6})alkyl, (C_{1-4})alkylthio(C_{1-4})alkyl, (C_{1-6})alkenyl, (C_{3-7})cycloalkyl, (C_{3-7})cycloalkyl(C_{1-4})alkyl, piperidinyl or pyrrolidinyl,

R_2 and R_4, independently, are

(a) hydrogen

(b) (C_{1-8})alkyl, (C_{3-7}) cycloalkyl or (C_{3-7})cycloalkyl(C_{1-4})alkyl, in each case optionally substituted by one to three groups selected from hydroxy, hydroxy(C_{1-4})alkyl, (C_{1-4})alkoxy, (C_{1-4})alkoxy(C_{1-4})alkyl, (C_{1-4})alkoxy(C_{1-4})alkoxy, (C_{1-4})alkylsulfanyl, (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyloxy, (C_{1-4})alkylcarbonylamino, (C_{1-4})alkylcarbonyl, (C_{1-4})sulfonyl, cyano, oxo, hetero (C_{3-7})cycloalkyl or heteroaryl, or

(c) aryl, aryl(C_{1-4})alkyl, heteroaryl or heteroaryl(C_{1-4}) alkyl, wherein in the latter two radicals heteroaryl denotes an aromatic 5- or 6- membered ring in which 1, 2 or 3 atoms are heteroatoms independently selected from O, N and S, wherein all radicals are optionally substituted by one to three groups selected from halogen, hydroxy, cyano, trifluoromethyl, carboxy, (C_{1-4})alkyloxycarbonyl, (C_{1-4})alkylcarbamoyl, (C_{1-4})alkylsulfonyl, (C_{1-4})alkylcarbonyloxy, (C_{1-4})alkylcarbonyl, (C_{1-4})alkyl, (C_{1-4})alkoxy or hydroxy(C_{1-4})alkyl, or

R_2 and R_4, together with the nitrogen to which they are attached, form an piperidino, pyrrolidinyl, morpholino or piperazinyl group, each of which is optionally substituted by one to three groups selected from hydroxy, hydroxy(C_{1-4})alkyl, (C_{1-4})alkoxy, (C_{1-4})alkoxy(C_{1-4})alkyl, (C_{1-4})alkoxy(C_{1-4})alkoxy, (C_{1-4})alkylsulfanyl, (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyloxy, (C_{1-4})alkylcarbonylamino, (C_{1-4})alkylcarbonyl, (C_{1-4})sulfonyl, cyano, oxo, hetero (C_{3-7})cycloalkyl or heteroaryl,

R_3 is hydrogen or (C_{1-4})alkyl,

X_1 is CH_2,

X_2 is CH_2, O, S, CO, COO, OCO, NHCO, CONH, or NR, R being hydrogen or (C_{1-4})alkyl,

Y is (C_{1-8})alkylen or (C_{1-8})alkylenoxy(C_{1-6})alkylen, (C_{1-8})alkenylen or (C_{1-8})alkenylenoxy(C_{1-6})alkylen,

Ar is a phenyl ring optionally mono- di- or trisubstituted by, independently, hydroxy or halogen, whereby X_1 and X_2 are in meta or para position to each other,

and either

Z is CO,

AA is a natural or unnatural alpha-amino-acid, and

n is 0 or 1,

or

Z is SO_2,

AA is an optionally substituted ethylencarbonyl group (derived from a natural or unnatural alpha-amino acid by replacement of the nitrogen by a methylen group), and

n is 1

in free base or acid addition salt form.

Claim 3. (original) A compound of formula I according to claim 1, wherein

R_1 is (C_{1-4})alkyl,

R_2 is (C_{1-6})alkyl,

R_3 is hydrogen or (C_{1-4})alkyl,

R_4 is hydrogen,

X_1 is CH_2,

X_2 is CH_2 or O,

Y is (C_{1-8})alkylen,

Ar is unsubstituted phenylen, whereby X_1 and X_2 are in meta position to each other,

and either

Z is CO,

AA is a natural or unnatural alpha-amino-acid, and

n is 0 or 1,

or

Z is SO_2,

AA is an optionally substituted ethylencarbonyl group (derived from a natural or unnatural alpha-amino acid by replacement of the nitrogen by a methylen group), and

n is 1

in free base or acid addition salt form.

Claim 4. (currently amended) A compound of formula I according to ~~any one of~~ claims 1 ~~to 3~~, wherein

R_1 is (C_{1-4})alkyl,

R_2 is (C_{1-6})alkyl,

R_3 is hydrogen or (C_{1-4})alkyl,

R_4 is hydrogen,

X_1 is CH_2,

X_2 is CH_2 or O,

Y is (C_{3-6})alkylen,

Ar is unsubstituted phenylen whereby X_1 and X_2 are in meta position to each other,

and either

Z is CO,

AA is $-N(H)-CH(CH_3)_m-C(O)-$, wherein m is 0 or 1 and

n is 0 or 1,

or

Z is SO_2,

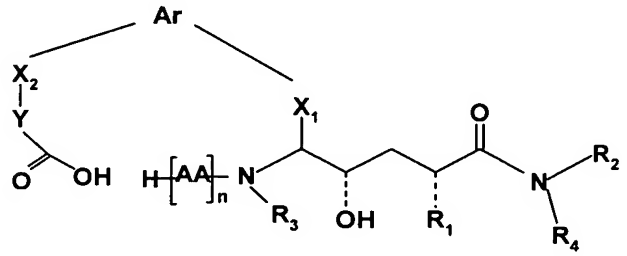
AA is $-CH_2-CH(CH_3)-C(O)-$ or $-CH_2-CH_2-C(O)-$ and

n is 1

in free base or acid addition salt form.

Claim 5. (original) A process for the preparation of a compound of formula I as defined in claim 1, or a salt thereof, which includes the steps of

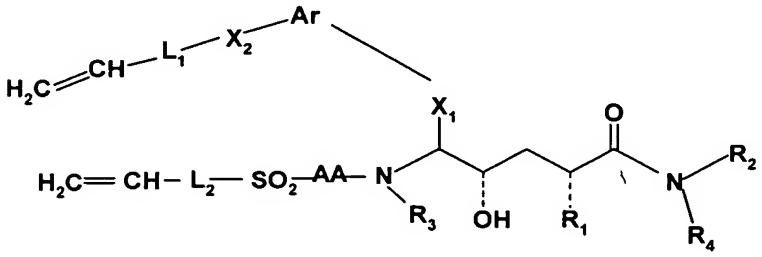
a) for the production of a compound of formula I wherein Z is CO, cyclisation by amide formation of a compound of formula II



II

wherein R_1, R_2, R_3, R_4, X_1, X_2, Y, Ar, AA and n are as defined in claim 1,

b) for the production of a compound of formula I wherein Z is SO_2 and Y is (C_{1-8})alkenylen or (C_{1-8})alkenylenoxy(C_{1-6})alkylen, cyclisation by metathesis of a compound of formula III



III

wherein R_1, R_2, R_3, R_4, X_1, X_2, Ar and AA are as defined in claim I and L_1 and L_2, independently are alkylen or alkylenoxyalkylen groups, or

c) for the production of a compound of formula I wherein Z is SO_2 and Y is (C_{1-8}) alkylen or (C_{1-8})alkylenoxy(C_{1-6})alkylen, hydrogenation of a compound of formula I wherein Z is SO_2 and Y is (C_{1-8})alkenylen or (C_{1-8})alkenylenoxy(C_{1-6})alkylen,

and recovering the so obtained compound of formula I in free base or acid addition salt form.

Claim 6. (currently amended) A compound according to ~~any one of~~ claims 1 ~~to 4~~ in free base or pharmaceutically acceptable acid addition salt form, for use as a pharmaceutical.

Claim 7. (currently amended) A compound according to ~~any one of~~ claims 1 ~~to 4~~ in free base or pharmaceutically acceptable acid addition salt form, for use in the treatment of neurological and vascular disorders related to beta-amyloid generation and/or aggregation.

Claim 8. (currently amended) A pharmaceutical composition comprising a compound according to ~~any one of~~ claims 1 ~~to~~ 4 in free base of pharmaceutically acceptable acid addition salt form, in association with a pharmaceutical carrier or diluent.

Claim 9. (currently amended) The use of a compound according to ~~any one of~~ claims 1 ~~to 4~~ in free base or pharmaceutically acceptable acid addition salt form, as a pharmaceutical, for the treatment of neurological and vascular disorders related to beta-amyloid generation and/or aggregation.

Claim 10. (cancelled)

Claim 11. (currently amended) A method for the treatment of neurological and vascular disorders related to beta-amyloid generation and/or aggregation in a subject in need of such treatment, which comprises administering to such subject a therapeutically effective amount of a compound according to ~~any one of~~ claims 1 ~~to 4~~ in free base or pharmaceutically acceptable acid addition salt form.

Claim 12. (currently amended) A combination comprising a therapeutically effective amount of a compound according to ~~any one of~~ claims 1 ~~to 4~~ in free base of pharmaceutically acceptable acid addition salt form and a second drug substance, for simultaneous or sequential administration.